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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,893	08/18/2003	Edgar Evert Steenwinkel	ACH2958	3354

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EXAMINER

VANOY, TIMOTHY C

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,893

Applicant(s)

STEENWINKEL ET AL.

Examiner

Timothy C. Vanoy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 18-50 is/are pending in the application.
- 4a) Of the above claim(s) 43-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 18-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>June 22, 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restrictions

Newly submitted claims 43-50 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: New claims 43-50 are directed to an apparatus which is restrictable from the originally presented claims which were drawn to a method.

Inventions set forth in claims 1 and 18-42 (group I) and claims 43-50 (group II) are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used for another and material different process such as making the table salt (NaCl) by feeding $\text{HCl}_{(\text{aq})}$ and NaOH into the applicants' vessels and conducting the reaction between $\text{HCl}_{(\text{aq})}$ and NaOH.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 43-50 are withdrawn from consideration

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as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- a) Claims 22, 23 and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 22, 23 and 41 are not supported by the specification as originally filed and (therefore) contain new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 33 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a) Regarding claim 33, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The person having ordinary skill in the art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The references of record in this application reasonably reflect this level of skill.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 18-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the English abstract of Japan Patent Document 63-064,925 (hence "JP-925") in view of the English abstract of Romanian Patent Document RO 90,697 A (hence "RO-697").

JP-925 discloses a process for obtaining iron hematite particles by subjecting an acidic suspension of FeOOH particles to a hydrothermal treatment.

The difference between the applicants' claims and JP-925 is that the applicants' claims set forth that the suspension is fed **continuously** through the vessels (whereas the process of JP-925 does not expressly mention that the suspension is fed **continuously** through the vessel), however it is submitted that this difference would have been obvious to one of ordinary skill in the art at the time the invention was made because the courts have already determined that it is *prima facie* obvious to convert a batch process into a continuous process: please see the discussion of the *In re Dilnot* 319 F.2d 188, 138 USPQ 248 (CCPA 1963) court decision set forth in section 2144.04(V)(E) in the MPEP 8th Ed Rev. 3 Aug. 2005 for details.

The difference between the applicants' claims and JP-925 is that applicants' claim 37 sets forth that the treatment occurs at a temperature ranging from 150 to 375 °C (whereas the process of JP-925 occurs at a temperature ranging from 100 to 130 °C).

RO-697 describes a similar process for preparing an iron compound by hydrothermally treating a mixture of Fe₂O₃ and FeOOH at a temperature ranging from 190 to 210 °C with agitation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process of JP-925 by operating the hydrothermal treatment at a temperature of 190 to 210 °C, in a manner that renders obvious the temperature limitations of applicants' claim 37, because RO-697 is evidence that such temperatures of 190 to 210 °C are conventionally used to hydrothermally treat iron-containing materials. It is noted that the particular hydrothermal treatment temperature will be a function of the particular iron-containing materials being subjected to hydrothermal treatment. Note that the courts have already determined that the overlapping portion of a claimed range and a prior art reference's range is *prima facie* obvious: please see the discussion of the *In re Wertheim* 541 F.2d 257, 191 USPQ 90 (CCPA 1976) court decision set forth in section 2144.05 in the MPEP Rev. 3, Aug. 2005.

The difference between the applicants' claims and JP-925 and RO-697 is that the applicants' dependent claims describe the throughput rates; the solids to liquid ratios of the suspension, etc., *however* it is submitted that these differences would have been obvious to one of ordinary skill in the art at the time the invention was made *because* it is reasonably expected that at least an obvious variation of the same processes described in JP-925 and RO-697 will inherently operate at at least obvious variations of the same throughput rates; the same solids to liquid ratios in the suspension, etc. set forth in the applicants' dependent claims.

Response to Arguments

Applicant's arguments submitted with the amendment filed on June 22, 2006 have been fully considered but they are not persuasive.

a) *The applicants argue that neither JP-925 or RO-697 describe a continuous process nor do they disclose all of the limitations of amended claim 1.*

The difference between the applicants' claims and JP-925 is that the applicants' claims set forth that the suspension is fed **continuously** through the vessels (whereas the process of JP-925 does not expressly mention that the suspension is fed **continuously** through the vessel), however it is submitted that this difference would have been obvious to one of ordinary skill in the art at the time the invention was made because the courts have already determined that it is *prima facie* obvious to convert a batch process into a continuous process: please see the discussion of the *In re Dilnot* 319 F.2d 188, 138 USPQ 248 (CCPA 1963) court decision set forth in section 2144.04(V)(E) in the MPEP 8th Ed Rev. 3 Aug. 2005 for details.

The combination of JP-925 and RO-697 render obvious all the limitations of the applicants' process claims for the reasons of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy C. Vanoy whose telephone number is 571-272-8158. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Timothy C Vanoy
Timothy C Vanoy
Primary Examiner
Art Unit 1754

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